

435.36
05/15/98
Rev. 02

NEW SITE IDENTIFICATION

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|---|-----------------|
| Part A - To Be Completed By Observer | |
| 1. Person Initiating report: Walker F. Howell | Phone: 526-6530 |
| Contractor WAG 5 Manager: F. L. Webber | Phone: 526-8507 |
| 2. Site Title: ARA-25; ARA-I Soils Beneath the ARA-626 Hot Cells | |
| <p>3. Describe the conditions that indicate a possible inactive or unreported waste site. Include location and description of suspicious condition, amount or extent of condition and date observed. A location map and/or diagram identifying the site against controlled survey points or global positioning system descriptors shall be included to help with the site visit. Include any known common names or location descriptors for the waste site.</p> <p>As part of the ongoing D&D activities at ARA I, radiologically-contaminated concrete floor slabs were cut out of the ARA-626 Hot Cells (Cell No. 1 and Cell No. 2). Because the concrete was poured directly on the soil, the underside of the slabs (about 6 inches thick) was covered completely with soil. A radiological evaluation by Radiological Control personnel was performed on the soils that sloughed off the underside of these concrete slabs, and on the rebar protruding out of the concrete. The initial contamination levels were determined by the RCT to be 50,000 dpm on the soils and the concrete rebar. However, this determination was difficult to verify because of the shine from the topside of the hot cell floor slabs.</p> <p>Subsequent surveying was performed on June 22 1998, during which soil immediately adjacent to the hot cell floor drains (i.e., beneath the slabs and at the base of the exposed floor drains) was removed and surveyed. The results of the survey showed soil next to the floor drain in Cell No. 1 to be greater than 500,000 dpm, beta/gamma, as determined with the Ludlum 2A gamma detector, and greater than 15 mR/Hr as determined with the Eberline ion chamber RO 20 instrument. Outlying soils (i.e., away from the drain area) beneath the slab area of this hot cell were surveyed at 8,000-12,000 dpm.</p> <p>Contamination levels of soils beneath the floor slab from Cell No. 2 were not as high as the levels found in Cell No. 1. Soil taken from the base of the floor drain was surveyed at 10,000 dpm. Contamination readings of the soils away from the floor drain for this cell were in the 5,000 dpm range.</p> <p>The floor drains (and accompanying drain lines) in the hot cells are connected into the hot cells' floors through welding to the carbon steel floor cladding. Stainless steel piping connects these drains to the ARA-729 hot waste tank (OU 5-01, ARA-16 site). The ARA-729 tank contains PCB contaminated, listed mixed waste along with transuranic radionuclides.</p> <p>There are 6 other drain lines that were also connected to the ARA-729 tank. These other lines are from the decontamination room, the service area, hot metallurgy area, room 125, and two isolation areas.</p> <p>It is not known yet if the soils beneath other portions of the ARA-626 building have been contaminated. This will not be known until the soils have been exposed following removal of the concrete slabs.</p> | |

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| Part B - To Be Completed By Contractor WAG Manager |
| <p>4. Recommendation:</p> <p><input checked="" type="checkbox"/> This site meets the requirements for an inactive waste site, requires investigation, and should be included in the INEEL FFA/CO Action Plan. Proposed Operable Unit assignment is recommended to be included in the FFA/CO. WAG: 5 Operable Unit: 5-12</p> <p><input type="checkbox"/> This site DOES NOT meet the requirements for an inactive waste site, DOES NOT require investigation, and should NOT be included in the INEEL FFA/CO Action Plan.</p> |

5. Basis for the recommendation: On Thursday, June 18th 1998, the WAG 5 manager performed a site inspection accompanied by the D&D site supervisor and the onsite Radiological Controls Technician. The WAG 5 manager requested that the Radiological Controls Technician collect a sample of soil and move away from the area of contamination to get an accurate reading on the soil. On June 22, the RCTs removed soil samples, moved away from the high rad field and using field instrumentation obtained reading of 500,000 dpm for the soil close to the drain and 12,000 dpm on soil from an adjacent drain.

It appears that the cause of the soil contamination may have been from the drains and piping in the hot cells since the contamination levels seem to be greater near the drains. The soil is being treated as an unknown waste until an action plan and analytical samples can be obtained.

The drains in the hot cells, decontamination area, hot metallography area, service area, the high bay and fuel storage area, and the isolation areas, all emptied into the ARA-729 hot waste tank. If the contamination encountered is from the drains, the potential contaminants of concern could possibly be the same as the tank contents, which have been identified as being PCB contaminated, listed mixed waste. Analytical results of the waste also detected transuranic radionuclides.

It is not known at this time the extent of contaminated soils under ARA-626, or if the soils contain the same contaminants as the tank. These questions may not be answered until the D&D of the building is complete and the suspect soils can be sampled. Potential exposure pathways would include both human health and ecological pathways.

The basis for recommendation must include: 1) source description; 2) exposure pathways; 3) potential contaminants of concern; and 4) descriptions of interfaces with other programs, as applicable (e.g.: D&D, Facility Operations)

6. Contractor WAG/Project Manager Certification: I have examined the proposed site and the information submitted in this document and believe the information to be true, accurate, and complete. My recommendation is indicated in Section 4 above.

Name: Frank L. Webber

Signature: Frank L. Webber

Date: 6/25/98

Part C - To Be Completed By DOE WAG Manager

7. DOE WAG 5 Manager Concurrence:

WAG 5 Operable Unit: 5-12

☒ Concur with recommendation.

☐ Do not concur with the recommendation. Explanation follows:

Name: Kevin C. O'Neill

Signature: Kevin C. O'Neill

Date: 6/25/98

Part D - To Be Completed By the INEEL FFA/CO Responsible Program Managers (RPM's)

8. FFA/CO RPM 's Concurrence:

For DOE-ID

Name: Kathleen Hain

Signature: Kathleen E Hain

Date: 7/8/98

☒ Concur

☐ Do not concur. Explanation follows:

For EPA Region X

Name: Wayne Pierre

Signature: Wayne Pierre

Date: 9/3/98

☒ Concur

☐ Do not concur. Explanation follows:

For State of Idaho

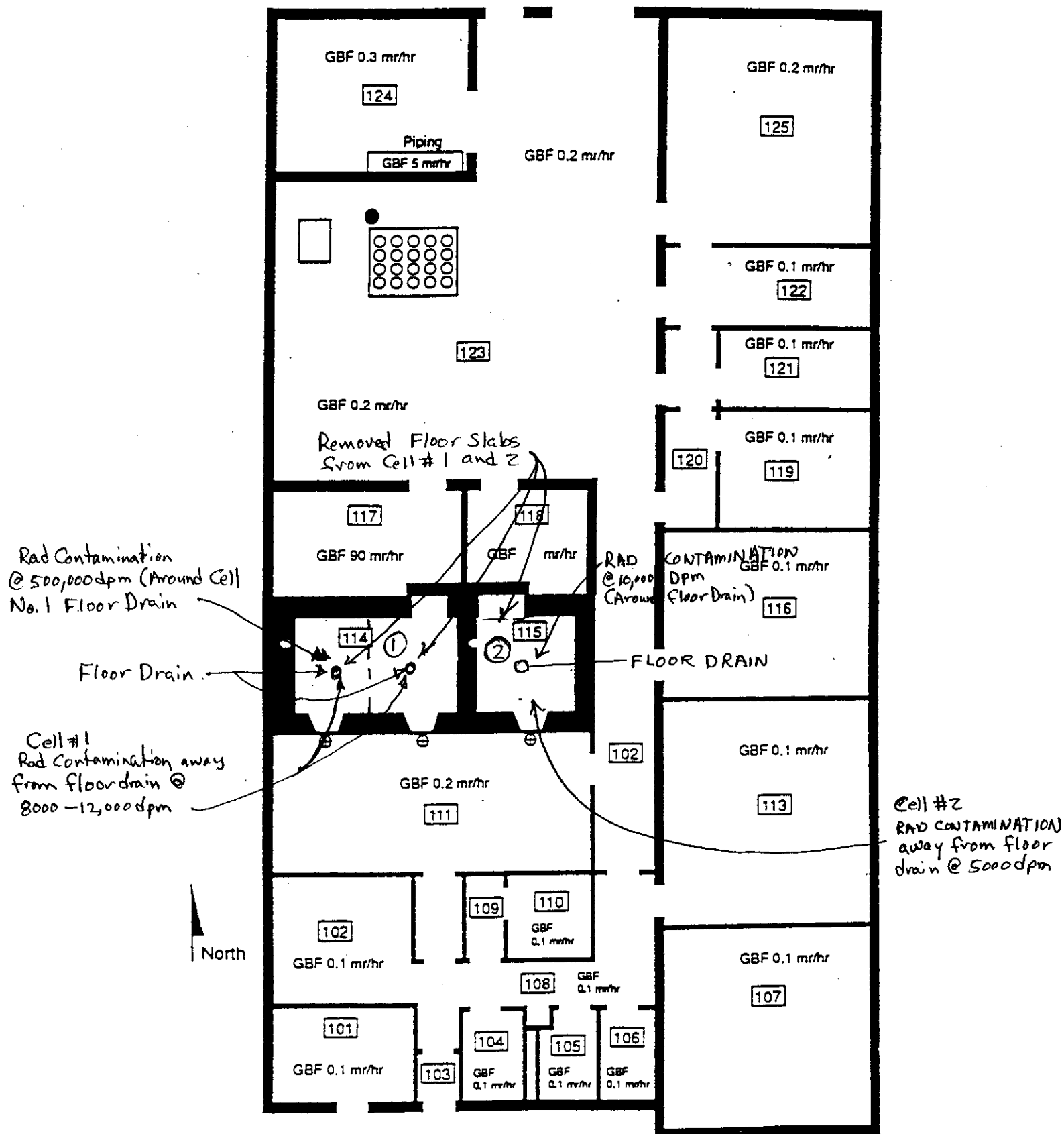
Name: Dean Nygard

Signature: Dean Nygard

Date: 10/19/98

☒ Concur

☐ Do not concur. Explanation follows:



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Figure 20. General body fields for ARA-626.

